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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,748	07/15/2003	Nobuyuki Ishige	501.42822X00	6927

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EXAMINER

DI GRAZIO, JEANNE A

ART UNIT PAPER NUMBER

2871

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H-11

<b>Office Action Summary</b>	<b>Application No.</b> 10/618,748	<b>Applicant(s)</b> ISHIGE ET AL.	
	<b>Examiner</b> Jeanne A. Di Grazio	<b>Art Unit</b> 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Election 01/14/2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) 4-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

Priority to Japanese Patent Application No. 2002-207691 (July 17, 2002) is claimed.

### ***Election/Restrictions***

Applicant's election with traverse of Species A, First Embodiment, Figure 1, claims 1-3 and 8-9 in the reply filed on January 14, 2005 is acknowledged.

The traversal is on the ground(s) that "the claimed embodiment are related to one another in terms of a liquid crystal display device having common features." (Remarks at page 5).

This is not found persuasive because: (1) that there may be a liquid crystal display device having common features is not clear as the sentence currently reads (it is not clear as to what the common features refer) and (2) that there may or may not exist common features among embodiments is not relevant to a clear identification of Species.

The requirement is still deemed proper and is therefore made FINAL.

Claims 4-7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected Species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on January 14, 2005.

*Claim Objections*

Claim 2 is objected to because of the following informalities:

As to claim 2, the recitation “and the first gate connecting lines are positioned at a higher level than are the second gate connecting lines” is unclear.

Said limitation is unclear because it is not known as to what the higher level is relative to with respect to the other elements of the claim.

For examination purposes, the Examiner presumes the limitation to be met by the current art of record.

Appropriate correction is **required**.

Claim 3 is objected to because of the following informalities:

As to claim 3, the limitation that the pixel electrode is divided into two areas is unclear.

The Examiner presumes that the two areas refer to a peripheral area and a display area.

Appropriate correction is **required**.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 9, Applicant recites that “one of the first gate connecting lines is disposed between two adjacent ones of the second gate connection lines when viewed in plan view.” The location of the first gate connecting line is unclear because there cannot be two second gate connection lines. It is further not known as to what “two adjacent ones” refers.

For examination purposes, the examiner presumes said limitation to read on the current art of record.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 5,949,502 (to Matsunaga et al.) in view of United States Patent 5,914,763 (to Fujii et al.).

As to claim 1, Matsunaga teaches and discloses that a conventional liquid crystal display device has two transparent insulating substrates that enclose a layer of liquid crystal material (Column 1, Lines 12-16)(Applicant's "a liquid crystal layer between a first substrate and a second substrate"), a plurality of gate lines and drain lines that define pixel regions in which switching elements and transparent pixel electrodes are formed (Id. at Lines 16-24)(Applicant's "the first substrate including a pixel area having pixel electrodes and a peripheral area surrounding the pixel electrodes, the pixel area including gate lines and drain lines, ..."), individual drain line groups and individual gate line groups extend into the periphery of the transparent insulating substrate to constitute external terminals which are connected with video drive circuits and gate scanning circuits (Id. at Lines 28-37)(Applicant's "the gate lines including first gate lines and second gate lines, first gate connecting lines and second gate connecting lines being disposed in the peripheral area, the respective first gate connecting lines electrically connecting the first gate lines to a liquid crystal driving circuit, the respective second gate lines electrically connecting the second gate lines to the liquid crystal driving circuit").

Matsunaga does not appear to explicitly specify that the first gate connecting lines and the second gate connecting lines are stacked in a thickness direction of the first substrate.

Fujii teaches and discloses a liquid crystal display with substantially equal resistances for sets of terminal electrodes and inclined wiring electrodes (Title, entire patent). Fujii teaches that connection electrodes and leadout wirings are arranged on sides of two substrates in a liquid crystal display device (Columns 6 and 7). Thereafter, the two substrates each bearing the connection electrodes and leadout wirings are stacked together at which point the connection electrodes and leadout wirings are mutually stacked with respect to each other (See, e.g., Column 14, Lines 12-46). Such a configuration allows for an equal gap at both the terminal section and the display section so that color variation is prevented (Id. Lines 43-46). This ultimately improves upon display quality (Id.).

Fujii is evidence that ordinary workers in the field of liquid crystal would have found the reason, suggestion and motivation to stack connection electrodes in a liquid crystal display device for uniform gap in both terminal and display sections so that color variation is prevented.

Therefore, it would have been obvious to one of ordinary skill in the art of liquid crystals at the time the invention was made to modify Matsunaga in view of Fujii for uniform gap in both terminal and display sections so that color variation is prevented and thus improved display quality.

As to claim 2, once the transparent substrates each bearing the connection electrodes and leadout electrodes are stacked, the various electrodes will be placed at different levels relative to each other (Fujii)(Please see Claim Objection above).

As to claim 3, as noted, the pixel has a periphery and display area (Matsunaga)(Please see claim Objection above).

As to claim 8, as noted in regard to claim 2, once the substrates are overlapped the various electrodes will overlap in a plan view (Fujii).

As to claim 9, both Matsunaga and Fujii teach and disclose various relationships among electrodes (Please see Claim Rejection with respect to 112(2)).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanne A. Di Grazio whose telephone number is (571)272-2289. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeanne Andrea Di Grazio  
Patent Examiner  
Art Unit 2871

JDG

  
**ROBERT H. KIM**  
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